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NAS CECIL FIELD
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SAMPLING AND ANALYSIS OUTLINE REPORT FOR BUILDING 182 NAS CECIL FIELD FL
3/1/2000
TETRA TECH

**Sampling and Analysis
Outline Report
for
Building 182
Base Realignment and Closure**

Naval Air Station Cecil Field
Jacksonville, Florida



**Southern Division
Naval Facilities Engineering Command
Contract Number N62467-94-D-0888
Contract Task Order 0078**

March 2000

**SAMPLING AND ANALYSIS OUTLINE REPORT
FOR
BUILDING 182
BASE REALIGNMENT AND CLOSURE**

**NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA**

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT N62467-89-D-0088**

**Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406**

**Submitted by:
Tetra Tech NUS, Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh, Pennsylvania 15220**

**CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0078**

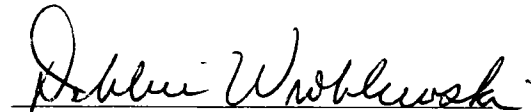
MARCH 2000

PREPARED UNDER THE SUPERVISION OF:



**MARK SPERANZA, P.E.
TASK ORDER MANAGER
TETRA TECH NUS, INC.
PITTSBURGH, PENNSYLVANIA**

APPROVED FOR SUBMITTAL BY:



**DEBBIE WROBLEWSKI
PROGRAM MANAGER
TETRA TECH NUS, INC.
PITTSBURGH, PENNSYLVANIA**



The professional opinions rendered in this decision document identified as Sampling and Analysis Outline Report for Building 182, Naval Air Station Cecil Field, Jacksonville, Florida were developed in accordance with commonly accepted procedures consistent with applicable standards of practice. Decision documents are based on information obtained from others and under the supervision of the signing engineer. If conditions are determined to exist differently than those described in this document, then the undersigned professional engineer should be notified to evaluate the effects of any additional information on this project described in this report.

Mark Speranza
Mark Speranza, P.E.
Professional Engineer No. PE0050304

Date: 7/31/00

Mark Speranza

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PROGRAM MANAGER
TETRA TECH NUS, INC.
PITTSBURGH, PENNSYLVANIA**



CERTIFICATION OF TECHNICAL
DATA CONFORMITY

The Contractor, Tetra Tech NUS, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-94-D-0888 are complete and accurate and comply with all requirements of this contract.

DATE: March 15, 2000

NAME AND TITLE OF CERTIFYING OFFICIAL:

Mark Speranza, P.E.
Task Order Manager

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ACRONYMS

ABB-ES	ABB Environmental Services, Inc.
BCT	BRAC Cleanup Team
BRAC	Base Realignment and Closure
CTO	Contract Task Order
EBS	Environmental Baseline Study
EDC	Economic Development Commission
NAS	Naval Air Station
PAH	Polynuclear aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PRE	Preliminary Risk Evaluation
SVOC	Semivolatile organic compound
TCL	Target Compound List
TtNUS	Tetra Tech NUS, Inc.
U.S. EPA	United States Environmental Protection Agency
VOC	Volatile organic compound

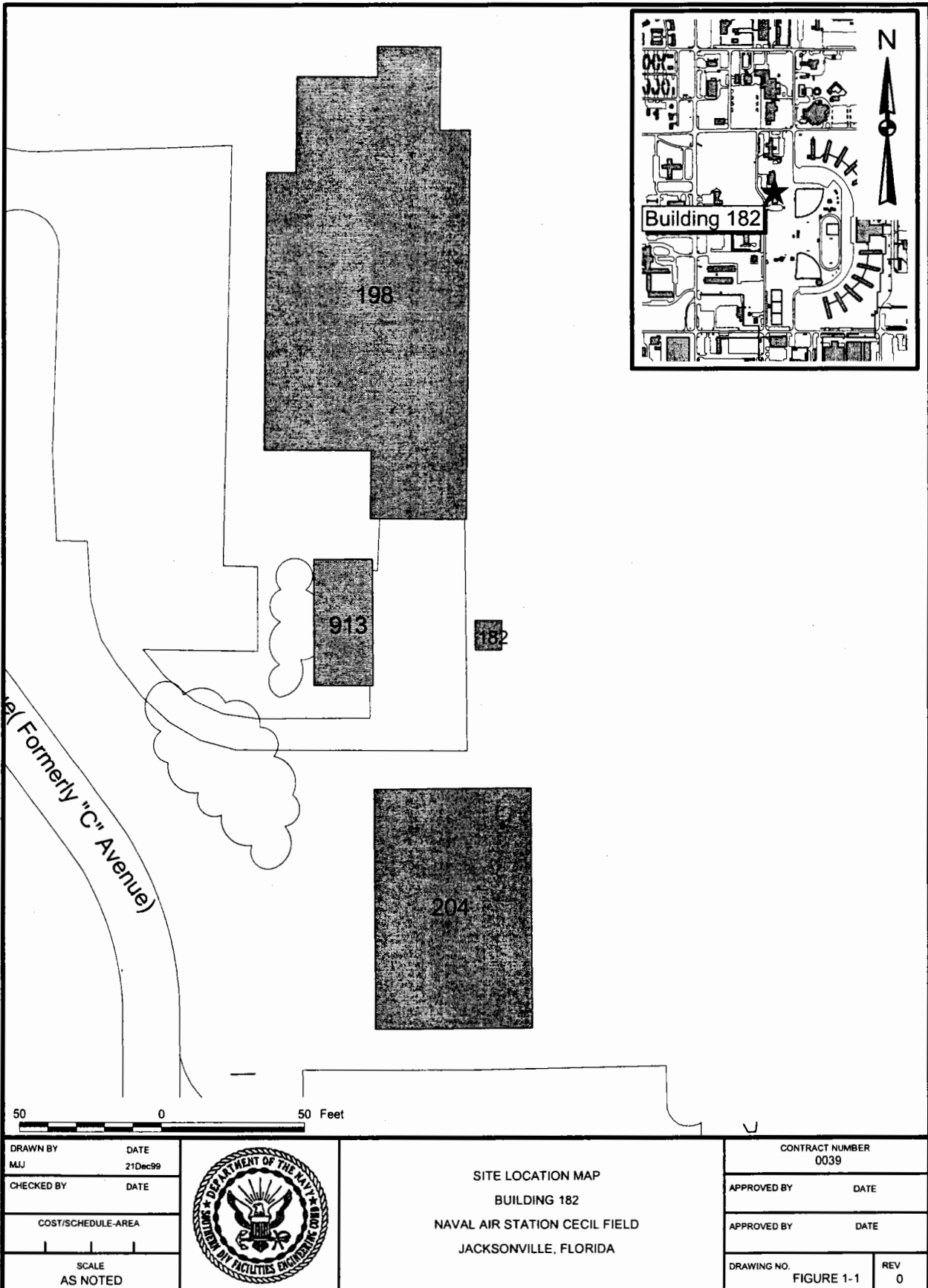
1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS), under contract to Southern Division, Naval Facilities Engineering Command, has completed Base Realignment and Closure (BRAC) sampling and analysis for Building 182 at Naval Air Station (NAS) Cecil Field. This program was conducted under Contract Number N62467-94-D-088, Contract Task Order (CTO) 0078. This report summarizes the related field operations, results, conclusions, and recommendation of the investigation.

Building 182 (Hazmat Shed) is located in the Main Base Area south of Newman Street (formerly 6th Street), between Authority Avenue (formerly C Avenue) and Pool Side Avenue (formerly B Circle) (see Figure 1-1).

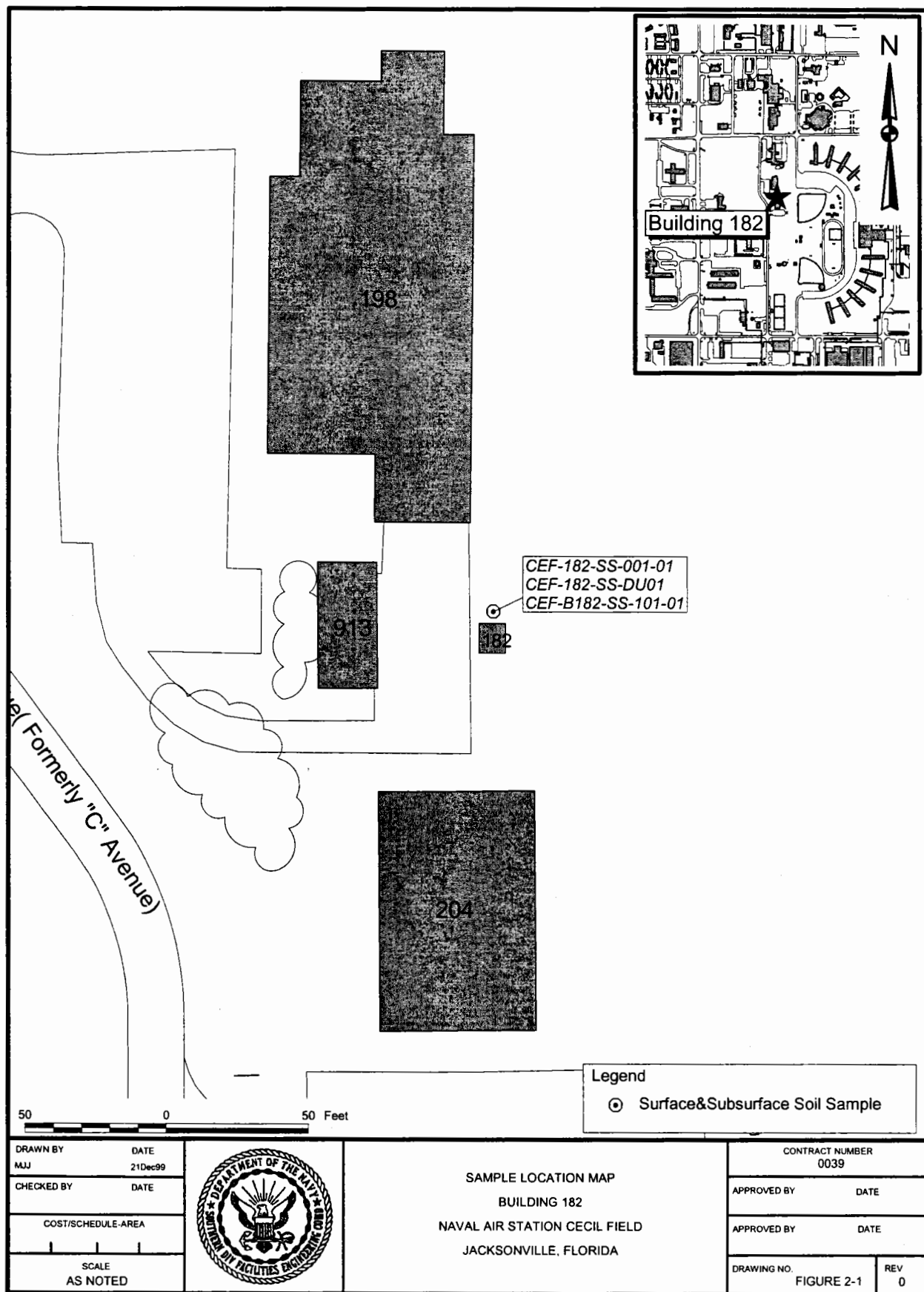
During the Environmental Baseline Study (EBS) for the Economic Development Commission (EDC), an area of stressed vegetation was observed to the north of the building. Subsequently, one soil sample was collected at this location to investigate potential impact of soils.

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3.0 RESULTS AND PRELIMINARY RISK EVALUATION

VOCs, SVOCs, PAHs, pesticides, and PCBs were not detected in the soil sample from Building 182. Based on this information, neither a human health preliminary risk evaluation (PRE) nor an ecological risk assessment is required for this site.

4.0 CONCLUSIONS AND RECOMMENDATION

Contaminants were not detected in the soil sample collected at Building 182 (Hazmat Shed). No other environmental concerns have been identified for this facility.

Based upon the findings of this evaluation, the color code for Building 182 should be reclassified to Light Green. No further action or further evaluation is recommended.

REFERENCES

ABB-ES, 1994. Base Realignment and Closure Environmental Baseline Survey Report, Naval Air Station, Cecil Field, Jacksonville, Florida.

Florida Department of Environmental Protection (FDEP), 1999. Contaminant Target Cleanup Levels, Florida Administrative Code (F.A.C.) Chapter 62-777, August.

Tetra Tech NUS, Inc. (TtNUS), 1999. Sampling and Analysis Work Plan, Building 30 (Commissary) and Building 182 (Hazmat Shed), Naval Air Station Cecil Field, Jacksonville, Florida, December.

TtNUS, 1998. Base-Wide Generic Work Plan, Naval Air Station Cecil Field, Jacksonville, Florida. October.

United States Environmental Protection Agency (U.S. EPA), 1996. Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM), May.

APPENDIX A
LABORATORY ANALYTICAL DATA



Tetra Tech NUS

INTERNAL CORRESPONDENCE

PITT-01-0-040

TO: MR. M. SPERANZA **DATE:** FEBRUARY 28, 2000

FROM: JUSTIN ORBICH **CC:** DV FILE

SUBJECT: ORGANIC DATA VALIDATION -VOA/SVOA/PEST/PCB
CTO 051 - NAS CECIL FIELD
SDG F5425

SAMPLES: 3/Surface Soil

CEF-182-SS-001-01 CEF-182-SS-DU01
CEF-30-SS-001-01

OVERVIEW

The sample set for CTO 051, SDG F5425 Naval Air Station (NAS) Cecil Field; Florida consists of three (3) aqueous environmental samples. The samples were analyzed for Target Compound List (TCL) volatile, semivolatile, and pesticide/PCB organic compounds. One field duplicate pair (CEF-182-SS-001-01/CEF-182-SS-DU01) was included within this SDG.

The samples were collected by Tetra Tech, NUS on December 6th, 1999 and analyzed by Accutest Laboratories. All analyses were performed in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria and analyzed according to SW 846 Method 8260B, 8270C, 8081A, and 8082 analytical and reporting protocols. The data in this SDG was validated with regard to the following parameters:

- * • Data Completeness
- * • Holding Times
- * • Initial/continuing calibrations
- * • Laboratory method/field quality control blank results
- * • Detection Limits
- * • Field Duplicate Precision

The symbol (*) indicates that all quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified analytical results are presented in Appendix A.

VOLATILE FRACTION

All quality control parameters were met for this fraction.

SEMIVOLATILE FRACTION

All quality control parameters were met for this fraction.

MEMO TO: MR. M. SPERANZA
DATE: FEBRUARY 28, 2000 – PAGE 2

PESTICIDE/PCB FRACTION

It should be noted that sample CEF-30-SS-001-01 was analyzed at dilutions of 200X and 1000X due to PCB interference thus causing elevated reporting limits.

EXECUTIVE SUMMARY

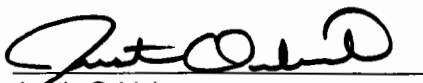
Laboratory performance: None.

Other Factors Affecting Data Quality: Sample CEF-30-SS-001-01 was analyzed at a dilution.

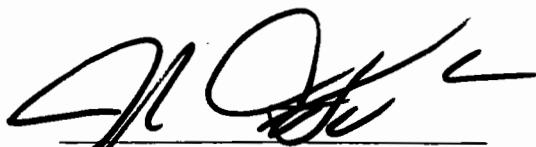
MEMO TO: MR. M. SPERANZA
DATE: FEBRUARY 28, 2000 - PAGE 3

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1994), and the NFESC "Navy Installation Restoration Program Laboratory Quality Assurance Guide" (February, 1996). The text of this report has been formulated to address only those problems affecting data quality.

"I attest that the data referenced herein was validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."


Justin Orbich

Chemist/Data Validator
Tetra Tech, NUS


Joseph A. Samchuck

Data Validation Quality Assurance Officer
Tetra Tech, NUS

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

CTO051-NAS CECIL FIELD

SOIL DATA

Accutest, NJ

SDG: F5425

Page

1

SAMPLE NUMBER:	CEF-182-SS-001-01	CEF-182-SS-DU01	CEF-30-SS-001-01	/ / 100.0 %
SAMPLE DATE:	12/06/99	12/06/99	12/06/99	
LABORATORY ID:	F5425-1	F5425-2	F5425-3	
QC_TYPE:	NORMAL	NORMAL	NORMAL	
% SOLIDS:	93.7 %	89.7 %	87.1 %	
UNITS:	UG/KG	UG/KG	UG/KG	
FIELD DUPLICATE OF:		CEF-182-SS-001-01		

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PESTICIDES/PCBs												
4,4'-DDD	3.6	U		3.7	U		3800	U				
4,4'-DDE	3.6	U		3.7	U		3800	U				
4,4'-DDT	3.6	U		3.7	U		3800	U				
ALDRIN	1.8	U		1.8	U		1900	U				
ALPHA-BHC	1.8	U		1.8	U		1900	U				
ALPHA-CHLORDANE	3.6	U		3.7	U		3150					
AROCLOR-1016	36	U		37	U		38000	U				
AROCLOR-1221	36	U		37	U		38000	U				
AROCLOR-1232	36	U		37	U		38000	U				
AROCLOR-1242	36	U		37	U		38000	U				
AROCLOR-1248	36	U		37	U		38000	U				
AROCLOR-1254	36	U		37	U		62300	J	Q			
AROCLOR-1260	36	U		37	U		38000	U				
BETA-BHC	1.8	U		1.8	U		1900	U				
DELTA-BHC	1.8	U		1.8	U		1900	U				
DIELDRIN	1.8	U		1.8	U		1900	U				
ENDOSULFAN I	1.8	U		1.8	U		1900	U				
ENDOSULFAN II	3.6	U		3.7	U		3800	U				
ENDOSULFAN SULFATE	3.6	U		3.7	U		3800	U				
ENDRIN	3.6	U		3.7	U		3800	U				
ENDRIN ALDEHYDE	3.6	U		3.7	U		3800	U				
ENDRIN KETONE	3.6	U		3.7	U		3800	U				
GAMMA-BHC (LINDANE)	1.8	U		1.8	U		1900	U				
GAMMA-CHLORDANE	3.6	U		3.7	U		5220					
HEPTACHLOR	1.8	U		1.8	U		392					
HEPTACHLOR EPOXIDE	1.8	U		1.8	U		1900	U				
METHOXYCHLOR	7.1	U		7.4	U		7600	U				
TOXAPHENE	180	U		180	U		190000	U				



Tetra Tech NUS

INTERNAL CORRESPONDENCE

PITT-02-0-055

TO: MARK SPERANZA —
FROM: JUSTIN ORBICH
SUBJECT: ORGANIC DATA VALIDATION – VOA
CTO 078 – NAS CECIL FIELD
SDG F5645
SAMPLES: 1/Surface Soil
CEF-B182-SS-101-01

DATE: FEBRUARY 9, 2000

CC: DV FILE

OVERVIEW

The sample set for CTO 078, SDG F5645 Naval Air Station (NAS) Cecil Field; Florida consists of one (1) surface soil environmental samples. The samples were analyzed for Polynuclear Aromatic Hydrocarbon (PAH) organic compounds. No field duplicate pairs were included within this SDG.

The samples were collected by Tetra Tech, NUS on and January 14th, 2000 and analyzed by Accutest Laboratories. All analyses were performed in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria and analyzed according to SW 846 Method 8310 analytical and reporting protocols. The data in this SDG was validated with regard to the following parameters:

- * • Data Completeness
- * • Holding Times
- * • Initial/continuing calibrations
- * • Laboratory method/field quality control blank results
- * • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified analytical results are presented in Appendix A.

PAH FRACTION

All quality control parameters were met for this fraction.

MEMO TO: MARK SPERANZA
DATE: FEBRUARY 9, 2000 – PAGE 2

EXECUTIVE SUMMARY

Laboratory performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1994), and the NFESC "Navy Installation Restoration Program Laboratory Quality Assurance Guide" (February, 1996). The text of this report has been formulated to address only those problems affecting data quality.

"I attest that the data referenced herein was validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."


Justin Orbich

Chemist/Data Validator
Tetra Tech, NUS


Joseph A. Samchuck

Data Validation Quality Assurance Officer
Tetra Tech, NUS

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1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

Qualifier Codes:

- A = Lab Blank Contamination
- B = Field Blank Contamination
- C = Calibration (i.e., % RSDs, %Ds, ICVs, CCVs, RPDs, RRFs, etc.) Noncompliance
- D = MS/MSD Noncompliance
- E = LCS/LCSD Noncompliance
- F = Lab Duplicate Imprecision
- G = Field Duplicate Imprecision
- H = Holding Time Exceedance
- I = ICP Serial Dilution Noncompliance
- J = GFAA PDS - GFAA MSA's $r < 0.995$
- K = ICP Interference - include ICSAB % R's
- L = Instrument Calibration Range Exceedance
- M = Sample Preservation
- N = Internal Standard Noncompliance
- O = Poor Instrument Performance (i.e., base-time drifting)
- P = Uncertainty near detection limit ($< 2 \times \text{IDL}$ for inorganics and $< \text{CRQL}$ for organics)
- Q = Other problems (can encompass a number of issues)
- R = Surrogates Recovery Noncompliance
- S = Pesticide/PCB Resolution
- T = % Breakdown Noncompliance for DDT and Endrin
- U = Pest/PCB D% between columns for positive results
- V = Non-linear calibrations, tuning $r < 0.995$ (correlation coefficient)
- W = EMPC result
- X = Signal to noise response drop
- Y = % Solid content is less than 30%

DATA QUALIFIER DEFINITIONS:

U - Value is a nondetected result as reported by the laboratory and should not be considered present.

APPENDIX A
Qualified Analytical Results

Report of Analysis

Page 1 of 1

Client Sample ID: CEF-B182-SS-101-01
Lab Sample ID: F5645-1
Matrix: SO - Soil
Method: SW846 8310
Project: NAS Cecil Field

Date Sampled: 01/14/00
Date Received: 01/15/00
Percent Solids: 91.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LC8297.D	1	01/30/00	AMA	01/20/00	M:OP1690	M:GLC94
Run #2							

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	72	ug/kg	
208-96-8	Acenaphthylene	ND	72	ug/kg	
120-12-7	Anthracene	ND	72	ug/kg	
56-55-3	Benzo (a) anthracene	ND	11	ug/kg	
50-32-8	Benzo (a) pyrene	ND	11	ug/kg	
205-99-2	Benzo (b) fluoranthene	ND	11	ug/kg	
191-24-2	Benzo (g,h,i) perylene	ND	11	ug/kg	
207-08-9	Benzo (k) fluoranthene	ND	11	ug/kg	
218-01-9	Chrysene	ND	11	ug/kg	
53-70-3	Dibenz(a,h)anthracene	ND	11	ug/kg	
206-44-0	Fluoranthene	11.3	11	ug/kg	
86-73-7	Fluorene	ND	72	ug/kg	
193-39-5	Indeno (1,2,3-cd) pyrene	ND	11	ug/kg	
90-12-0	1-Methylnaphthalene	ND	72	ug/kg	
91-57-6	2-Methylnaphthalene	ND	72	ug/kg	
91-20-3	Naphthalene	ND	72	ug/kg	
85-01-8	Phenanthrene	ND	72	ug/kg	
129-00-0	Pyrene	67.4	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		20-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

600302

APPENDIX C
Support Documentation

TETRA TECHNUS, INC.

CHAIN OF CUSTODY

NUMBER

1-H-80

PAGE 1 OF

[illegible]

F5645

HOLDING TIME

02/07/00

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
UG/KG	CEF-B182-SS-101-01	F5645-1	NORMAL	F5645	PAH	01/14/00	01/20/00	01/30/00	6	10	16